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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,910	01/19/2001	Paul A. Kline	2171-010	8256

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EXAMINER	
NGUYEN, PHUNG	
ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 02/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/765,910	KLINE, PAUL A.	
	Examiner	Art Unit	
	Phung T Nguyen	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6,7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2-26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abali et al. [U.S. Pat. 6,297,729] in view of Colton et al. [U.S. Pat. 6,239,722]

Regarding claim 2: Abali et al. disclose a method and apparatus for securing communications along AC power lines comprising a low pass filter coupled to the branch line adjacent to the power meter (figure 2, col. 3, lines 12-17, and col. 4, lines 12-30); and the power line 32c connected to the branch line across the low pass filter (col. 5, lines 19-22) providing a medium for communications between two network systems except a repeater. However, using a repeater for moving all received packets between LAN segments, boosting the signal and extending the length of the network media or a router for routing information between any two networks is old and well known in the art. Furthermore, Colton et al. disclose a system and method for communication between remote locations comprising a router (col. 6, lines 16-26) for transmitting data associating with the plurality of devices over a wide area network. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the router of Colton et al. into the system of Abali et al. in order to move all frames between two networks.

Regarding claim 3: Abali et al. disclose the low pass filter is disposed on the subscriber side of the power line (col. 4, lines 22-30).

Regarding claim 4: Abali et al. disclose the power line communication 32c is connected across the low pass filter (col. 5, lines 17-22) but do not show the power line communication is connected across both the low pass filter and the power meter as claimed. However, whether a skilled artisan connects the power line communication repeater across the low pass filter or both the low pass filter and the power meter would have been an obvious design choice because they are functional equivalent for the quality and strength of a signal decays over distance.

Regarding claim 5: Abali et al. disclose the low pass filter is disposed on the transformer side of the power meter (col.3, lines 47-60).

Regarding claim 6: Refer to claim 4 above.

Regarding claim 7: All the claim subject matter is already discussed in respect to claims 2 and 4 above.

Regarding claim 8: Abali et al. disclose the low pass filter is disposed on the subscriber side of the power meter (figure 3, col. 4, lines 22-30).

Regarding claim 9: Abali et al. disclose the low pass filter is disposed on the transformer side of the power meter (figure 2, col. 3, lines 55-60).

Regarding claim 10: Abali et al. disclose a first filter coupled to the electrical power line, wherein the filter prevents the flow of data signals through the electrical power line and permits the flow of power signals through the electrical power line (col. 3, lines 12-17); and a power line communications repeater in communication with the electrical power line (col. 5, lines 18-24). Plus the consideration of claim 2 above.

Regarding claim 11: Colton et al. disclose the power line communication router (col. 6, lines 19-22).

Regarding claim 12: Abali et al. show that the power line communications repeater prevents the subscriber from accessing data associated with another subscriber (col. 2, lines 41-47).

Regarding claim 13: Abali et al. disclose the filter is coupled to the electrical power line on the subscriber side of an electrical power meter (figure 3, col. 4, lines 12-30).

Regarding claim 14: Abali et al. disclose the filter is coupled to the electrical power line on the electrical transformer side of an electrical power meter (col. 6, lines 8-11).

Regarding claim 15: Refer to claim 4 above.

Regarding claim 16: Refer to claim 15 above.

Regarding claim 17: Abali et al. disclose the power line communications repeater is connected across the first filter (figure 2, col. 5, lines 17-22).

Regarding claim 18: Abali et al. disclose a data network in communication with the power line communications repeater, and wherein the data network provides the data signal (col. 3, lines 55-60).

Regarding claim 19: Colton et al. disclose the data network is a wide area network (col. 6, lines 19-22).

Regarding claim 20: Abali et al. disclose the data network is in communication with the electrical power line on the transformer side of the first filter (figure 2, col. 3, lines 55-60).

Regarding claim 21: Colton et al. disclose the router is in communication with a plurality of subscribers (col. 6, lines 16-39).

Regarding claim 22: Abali et al. disclose a second filter coupled to a second of the electrical power line (figure 2, col. 5, lines 41-44).

Regarding claim 23: Abali et al. disclose the power line communication router is coupled to the first of the electrical power line at a position that in on the subscriber side of the first filter (col. 3, lines 55-60); and the router is coupled to the second of the electrical power lines at a position that is on the subscriber side of the second filter (col. 5, lines 41-44). Plus the consideration of claim 2 above.

Regarding claim 24: Abali et al. disclose the power line communications repeater in communication with the second filter and the second of the electrical power lines (col. 5, lines 41-55).

Regarding claim 25: Abali et al. disclose the first filter is conductively connected to the electrical power line (col. 3, liens 55-60).

Regarding claim 26: Abali et al. disclose th efirst filter is inductively coupled to the electrical power line (col. 4, lines 41-56).

Regarding claim 28: Abali et al. disclose a first low pass filter coupled to the first branch line (col. 3, lines 55-60). Plus the consideration of claim 2 above.

Regarding claim 29: Abali et al. disclose a second low pass filter coupled to the second branch line (col. 5, lines 41-55). Plus the consideration of claim 2 above.

Regarding claim 30: Abali et al. disclose a low pass filter coupled to the branch line on the electric power distribution transformer side of the node (col. 3, lines 45-60) and a router connected to the branch line at a node is discussed in respect to claim 2 above.

3. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abali et al. in view of Colton et al. and further in view of Weikel [U.S. Pat. 4,652,855]

Regarding claim 27: The combination fails to teach the first filter is a toroid through which the electrical power line passes. However, Weikel discloses a portable remote meter reading apparatus comprising a toroid-shaped ferrite core 72 (col. 11, lines 5-18) for passing the electric power. Therefore, it would have been obvious to the skilled artisan to employ the teaching of Weikel into the system of Abali et al. and Colton et al. in order to reduce cost which is an advantage.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Fisher et al. [U.S. Pat. 6,140,911] disclose a power transfer apparatus for concurrently transmitting data and power over data wires.

b. Binder [U.S. Pat. 6,396,391] discloses a communications and control network having multiple power supplies.

c. Shrestha [U.S. Pat. 5,870,016] discloses a power line carrier data transmission systems having signal conditioning for the carrier data signal.

d. Binder [U.S. Pat. 6,480,510] discloses a local area network of serial intelligent cells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 703-308-6252. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on 703-308-6730. The fax numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Examiner: Phung Nguyen

Date: February 6, 2003

DANIEL J. WU
PRIMARY EXAMINER
2/10/03